

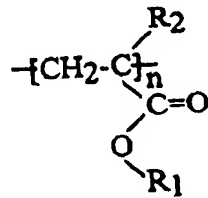
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cont.

(c) a polymer matrix including a polymerizable resin adapted for use in an oral environment which contains at least one of 2,2-bis[4-(2-hydroxy-3-methacryloyloxypropoxy)phenyl]propane, ethyleneglycol dimethacrylate; triethyleneglycol dimethacrylate, and/or an urethane dimethacrylate resin; a filler, initiator, a coupling agent and, optionally, additional additives.

R26

⁴⁰
~~42~~ (New) A microwave curable composition suitable for a denture base according to claim ³⁹
~~41~~, wherein said composition comprises (a).

⁴¹
~~43~~ (New) A microwave curable composition suitable for a denture base according to claim ⁴⁰
~~42~~, wherein said composition contains at least one acrylic polymer containing repeating monomer units represented by the formula



I

wherein

R₁ represents a hydrogen atom, an alkyl group, a substituted alkyl group, a benzyl group, a hydroxy alkyl group, a cyclic hydrocarbon, an ether group,

R₂ represents a hydrogen atom, a halogen atom, an alkyl group, or a substituted alkyl group, and

n is an integer of two or more.

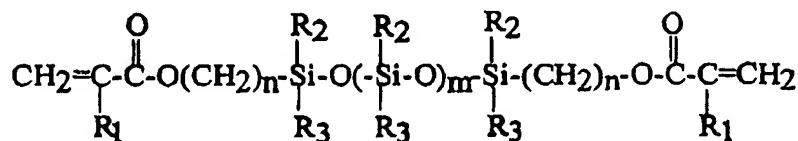
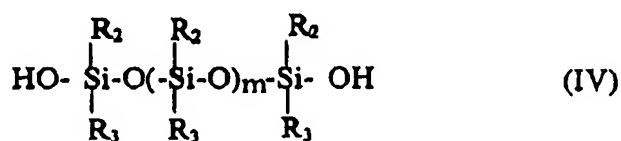
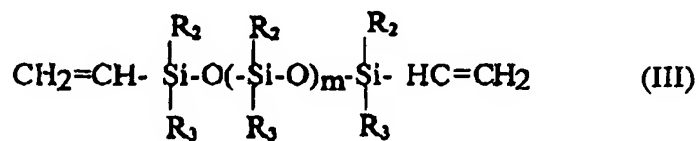
⁴²
~~44~~ (New) A microwave curable composition suitable for a denture base according to claim ⁴¹
~~43~~, wherein R₁ represents a hydrogen atom, an alkyl group, a cyclic hydrocarbon, a benzyl group, a hydroxy alkyl group, or an ether group.

⁴³
~~45~~ (New) A microwave curable composition suitable for a denture base according to claim ⁴¹
~~43~~, wherein R₂ represents a hydrogen atom, a halogen atom, or an alkyl group.

⁴⁴
~~46~~ (New) A microwave curable composition suitable for a denture base according to claim ⁴⁰
~~42~~, wherein said filler comprises an organic filler or an inorganic filler.

Free Cl cont. ⁴⁵₄₁. (New) A microwave curable composition suitable for a denture base according to claim ³⁹₄₁, wherein, wherein said composition comprises (b).

⁴⁶₄₇. (New) A microwave curable composition suitable for a denture base according to claim ³⁹₄₇, wherein said organopolysiloxane is represented by any of formulas (III), (IV) or (V)



wherein said formulas

m represents a value of 1 to about 6,000,

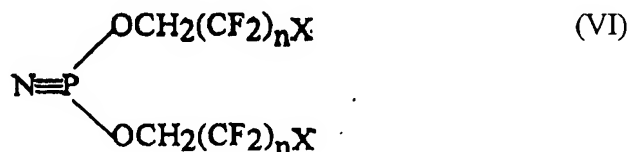
n represents an integer having a value of 1 to 6,

R₁ represents a hydrogen atom or an alkyl group,

R₂ represents an alkyl group of 1-6 carbon atoms, and

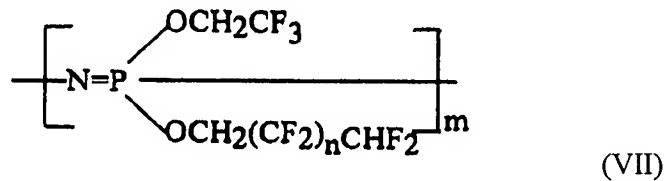
R₃ represents an alkyl group having 1-6 carbon atoms.

P. 126 ⁴⁷₄₇. (New) A microwave curable composition suitable for a denture base according to claim ³⁹₄₇, wherein said composition comprises (b) and said at least one phosphonitrile fluoropolymer that is represented by formula (VI):



U.S. Appl. No. 10/074,051 ANGEL et al.

in which X represents a hydrogen atom or fluorine atom, n is a value of 1 to 11; or
that has repeating monomer units represented by formula (VII):



in which n represents 3, 5, 7, 9 or 11 and m is from 10,000 to 50,000.

⁴⁸₃₉ 50. (New) A microwave curable composition suitable for a denture base according to claim 41, wherein said composition comprises (c).

⁴⁹₄₈ 51. (New) A microwave curable composition suitable for a denture base according to claim 50, wherein said initiator comprises at least one microwave sensitive compound.

⁵⁰₄₉ 52. (New) A microwave curable composition suitable for a denture base according to claim 51, wherein said initiator comprises at least one member selected from the group consisting of benzoyl peroxide, dilauroyl peroxide, (tert-butyl) peroctoate, tert-butyl perbenzoate, 2,4-dichlorobenzoyl peroxide and 4,4-dichlorobenzoyl peroxide.

⁵¹₄₉ 53. (New) A microwave curable composition suitable for a denture base according to claim 51, wherein said composition contains 0.05% to 1.0% by weight of said initiator.

⁵²₄₈ 54. (New) A microwave curable composition suitable for a denture base according to claim 53, wherein said coupler comprises gamma-methoxypropylene silane or a thiomethacrylate.

⁵³₄₀ 55. (New) A microwave curable composition suitable for a denture base according to claim 54, wherein (a) further comprises an amine accelerator.

⁵⁴₃₉ 56. (New) A microwave curable composition suitable for a denture base according to claim 55, wherein said filler comprises particles having a particle size in the range of 0.04 to approximately 10 micrometers.

U.S. Appl. No. 10/074, [REDACTED] TANGEL et al.

R126
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cont.

⁵⁵
~~57~~. (New) A method for forming a hardened object comprising

(i) forming a hardenable dental composite from a microwave curable composition, or applying a microwave curable resin matrix to a tooth; and

(ii) obtaining said hardened object by applying microwave energy to harden said composite or cure said resin matrix.

⁵⁶
~~58~~. (New) A method according to claim ⁵⁵
~~57~~, wherein said composite is a dental prosthetic or orthopedic element.

R126

⁵⁷
~~59~~. (New) A method according to claim ⁵⁵
~~57~~, wherein said composite is a dental prosthetic and in (ii) the hardening is intra-oral using a hand-held microwave applicator.

⁵⁸
~~60~~. (New) A method according to claim ⁵⁵
~~57~~, wherein said dental prosthetic is a composite filling, a crown, a bridge, an inlay, an overlay, a facing, a veneer or orthodontic appliance.

⁵⁹
~~61~~. (New) A method according to claim ⁵⁵
~~57~~, wherein said microwave curable composite are according to claim 20.

⁶⁰
~~62~~. (New) A method according to claim ⁵⁵
~~57~~, wherein in said method a hand-held microwave applicator is used in curing said resin matrix.

See Appendix